



# The Deep Impact Comet Acrostic



Created for Deep Impact Mission, A NASA  
Discovery Mission  
Maura Rountree-Brown  
Educator/Student - Enrichment

**C** ARE COLD AND ICY  
HAVE COMA  
DO THEY HAVE A CRUST?

**O** OUTGAS ICE AND DUST  
COME FROM THE OORT CLOUD OR KUIPER BELT

**M** MIDDLE CALLED A NUCLEUS  
MILLIONS OF MILES OF TAIL

**E** FROM THE EARLY SOLAR SYSTEM  
HAVE ELLIPTICAL ORBITS

**T** THREE TAILS – DUST, ION AND NEUTRAL SODIUM

**S** THE SUN HEATS COMETS TO CAUSE OUTGASSING,  
REFLECTION OF DUST, MOVING THE COMA BACK  
TO FORM A TAIL. COMETS ARE SNOWY DIRTBALLS  
OR DIRTY SNOWBALLS – WHICH ONE??

**ALSO:** The appearance of the nucleus is very dark and sometimes mottled or spotted in appearance because some of the material from a comet's jets settles back down and clings to the surface. They hold important clues to the formation of the solar system and could potentially offer natural resources for us if we ever live in space. A comet that takes 200 years or more to pass around the Sun is a *long period comet* while *short period comets* come more

often, every 20 years or less. Comets with orbit periods in between are called *Halley-type comets*. Want to know more?

Check out the **Deep Impact mission to a comet** at:

<http://deepimpact.jpl.nasa.gov>

Find out about more NASA comet missions at:

<http://deepimpact.jpl.nasa.gov/science/smallbodies.html>